

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 18058 PCT	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/DK2005/000085	International filing date (day/month/year) 09.02.2005	Priority date (day/month/year) 09.02.2004	
International Patent Classification (IPC) or national classification and IPC H04M1/60			
Applicant GN NETCOM A/S et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 02.12.2005		Date of completion of this report 26.01.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer de Biolley, L Telephone No. +31 70 340-3137	



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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-12 as originally filed

Claims, Numbers

1-15 filed with telefax on 02.12.2005

Drawings, Sheets

1/2, 2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☒ the claims, Nos. 16
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 5

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 5 are so unclear that no meaningful opinion could be formed (*specify*):

see separate sheet

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4,6,9,10,11,15
	No: Claims	1-3,7,8,12,13,14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-4,6-15
Industrial applicability (IA)	Yes: Claims	1-4,6-15
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Reference is made to the following documents:

- D1 : US 2003/064746 A1 (RADER R. SCOTT ET AL) 3 April 2003 (2003-04-03)
- D2 : US 5 099 514 A (ACREE ET AL) 24 March 1992 (1992-03-24)
- D3 : US 5 058 155 A (LARSEN ET AL) 15 October 1991 (1991-10-15)
- D4 : EP 1 089 526 A (LUCENT TECHNOLOGIES INC) 4 April 2001 (2001-04-04)

Re Item III.

The terms "priority override which prioritizes one signal over all others" used in claim 5 are vague and unclear and leave the reader in doubt as to the meaning of the technical features to which they refer, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.

Re Item V.

1 INDEPENDENT CLAIM 1

- 1.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D1 discloses all the features of claim 1 (the references in parentheses applying to this document):

An amplifier coupling (fig. 2, ref. 203, 213) that is coupled between a telephone (fig. 2, ref. 200) and a headset (fig. 3, ref. 10), characterized in that the amplifier coupling is dynamically user-configurable (see paragraph 66: "transfer of hearing profile depending on user interaction") with user-specific transfer characteristics (paragraph. 52: "listener's hearing profile") to pass a specific sound picture to the headset and in that the transfer characteristics are dynamically adaptable in whole or in part of the frequency range that represents the sound picture (paragraphs 70 and 50).

- 1.2 Similar reasoning can be applied to independent claim 1 using D2 :
In D2, the amplifier coupling is dynamically user configurable with user-specific transfer characteristics, by using the left and right equalizers (D2, fig. 2, ref. 38 and 39).

The subject-matter of claim 1 is therefore not new (Article 33(1) and (2) PCT) with respect to either D1, D2.

2 DEPENDENT CLAIMS 2, 3, 7, 8 AND 12-14

Dependent claims 2, 3, 7, 8, 12-14 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT) because the features of said claims are known from either D1 or D2. Concerning these claims, the following passages are of interest :

- 2.1 Claims 2, 3 : D1, paragraph 54 : "one hearing profile for each ear"
- 2.2 Claims 7, 8, 12 : see D2, fig. 2, ref. 38, 39
- 2.3 Claim 13, 14 : D1, paragraphs 38, 52

3 DEPENDENT CLAIMS 4, 6, 9, 10, 11 AND 15

Dependent claims 4, 6, 9, 10, 11, 15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT) for the following reasons:

- 3.1 The features of claim 4 could easily be derived from D1 by the skilled person. Indeed, providing a first characteristic tuned to transfer voice and a second characteristic tuned to transfer non-voice sounds is merely a matter of acquiring an adequate "hearing profile" as described for example in D1, paragraph 51.
- 3.2 The feature of claim 6 (and respectively 15) is merely one of several possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.
- 3.3 The features of claims 9-11 are known from D3 (see passages below). It would be obvious to the person skilled in the art, to apply these features with corresponding effect to the device of D2 thereby arriving at the features of said claims :

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Claims 9, 10 : D3, col. 4, lines 39-42

Claim 11 : D3, fig. 2, ref. 6

Re Item VII.

- 1 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- 2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D4 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII.

- 1 The expression "incorporated by reference" (see page 1, line 8) is not allowed (see the PCT-Guidelines, chapter II-4.17).
- 2 The term "dynamically" used in claim 1 is unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.
The use of "dynamically" is furthermore in contradiction with the description (see page 6, lines 5-7 : "fixed" transfer characteristics).
- 3 There is a lack of antecedence in claim 9 with "the stationary telephone" because it has not been mentioned before (claims 1-9 state a telephone). Thus this lack of antecedence causes a clarity problem (Article 6 EPC).

PATENT CLAIMS

1. An amplifier coupling that is coupled between a telephone and a headset, characterized in that the amplifier coupling is dynamically user-configurable with user-specific transfer characteristics to pass a specific sound picture to the headset, and in that said transfer characteristics are dynamically adaptable in whole or part of the frequency range that represents the sound picture.
2. An amplifier coupling according to claim 1, characterized in that said user-specific characteristics include a plurality of said characteristics.
3. An amplifier coupling according to claims 1 - 2, characterized in that the telephone headset includes left and right headsets, and wherein one of said characteristics is fed to the left headset and wherein another characteristic is fed to the right headset.
4. An amplifier coupling according to claim 3, characterized in that one of said characteristics is tuned primarily to transfer voice and the other is tuned primarily to transfer non-voice sounds.
5. An amplifier according to claims 2 - 4, characterized in that one characteristic includes a priority override which prioritizes one signal over all others and transfers said priority feed to at least one headset in preference to the other feed.
6. An amplifier coupling according to claims 1 - 5, characterized in that the user-specific transfer characteristic is Telstra Specification TT4.
7. An amplifier coupling according to claims 1 - 5, characterized in that the user-specific transfer characteristic attenuates signals above about

1 KHz.

5 8. An amplifier coupling according to claims 1 - 5, characterized in that the user-specific transfer characteristic attenuates signals in the frequency range of about 1 - 1.5 KHz, while the signals are amplified above about 2 KHz.

10 9. An amplifier coupling according to claims 1 - 8, characterized in that it contains an automatic gain control of signals fed to the headset, said gain being set on the basis of a signal detected from the stationary telephone.

15 10. An amplifier coupling according to claims 1 - 9, characterized in that the user-specific transfer characteristics contain a maximum permissible amplitude of the signal transferred to the headset in the entire transferred frequency spectrum.

20 11. An amplifier coupling according to claims 1 - 10, characterized in that the telephone and the amplifier coupling are interconnected by two wires, and that a switch, such as a bypass coupling, is coupled between the wires.

25 12. An amplifier coupling according to claims 1 - 11, characterized in that the user-specific characteristics are configured in the amplifier coupling as fixed circuits, where each circuit may be coupled by switches.

30 13. An amplifier coupling according to claims 1 - 12, characterized in that a PC adapted to transfer the user-specific transfer characteristics is coupled to the amplifier coupling.

14. An amplifier coupling according to claim 13, characterized in

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that the coupling of the PC takes place via a USB port .

15. An amplifier coupling according to claim 13, characterized in that the coupling of the PC to the amplifier coupling is wireless.

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AMENDED SHEET
575 P.009